



# Association between Health Literacy and Screening Behavior on Colorectal Cancer among the Adult Population in Sarawak, Malaysia

Jores D, Abdullah AR, Rahman MM

Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak, Malaysia.

## ABSTRACT

**Introduction:** Colorectal cancer screening is proven to reduce the mortality associated with colorectal cancer. However, currently, there is no well-established population-based colorectal cancer screening program in Malaysia.

**Objective:** This study aims to determine the relationship between screening behaviour on colorectal cancer and health literacy among Sarawak's adult population.

**Methods:** This was a cross-sectional study done in Sarawak. Data collection was done via face-to-face interviews using a validated structured questionnaire. Descriptive analysis was done using IBM SPSS version 22.0 to describe the sociodemographic characteristics and determine the respondents' health literacy level, colorectal cancer-related knowledge, belief, and screening behaviour. WarpPLS 7.0 stable version was performed to examine the relationship between screening behaviour on colorectal cancer and health literacy.

**Results:** A total of 829 respondents participated in this study, with 50.5% males and 49.5% females. The mean (SD) age of the respondents was 55.78 (5.0) years. Structural path analysis revealed a non-significant relationship between health literacy and screening behaviour ( $p > 0.05$ ). The perceived threat has a positive effect on the screening behaviour ( $p < 0.001$ ), while perceived benefits and barriers did not have any impact on screening behaviour on colorectal cancer ( $p > 0.05$ ).

**Conclusion:** Health literacy did not have any significant association with the screening behaviour of colorectal cancer. The perceived threats have a positive effect, while the perception of benefits and barriers did not significantly impact screening behaviour. This finding could guide the development and formulation of successful health promotion and education to adopt healthy behaviour by focusing on health belief component apart from health literacy, thus reducing the cancer disparities and ensuring health equity.

**Key Words:** Colorectal cancer, Health literacy, Sarawak, Screening

## INTRODUCTION

Colorectal cancer represents a major public health problem, ranked as the third commonest cancer and the fourth most common cancer death.<sup>1</sup> The number of people having colorectal cancer grew by two-folds in 2013 compared to 1990, i.e., it rose from 818 000 in 1990 to 1.6 million in 2013.<sup>1</sup> In Malaysia, colorectal cancer is the most frequent cancer among men and the second most frequent cancer among women after breast cancer.<sup>2</sup> Most colorectal cancer patients presented late to health facilities, with only 34.1% and 34.8% of cancer cases detected stage I and II, respectively, for both men and women.<sup>2</sup> This differs from other developed countries such as the United States, Europe, and Singapore. A higher number of patients presented at an early stage, contributed

by well-developed colorectal cancer screening programs in those countries.<sup>3</sup> Colorectal cancer screening is proven to reduce the mortality associated with colorectal cancer.<sup>4</sup> However, currently, there is no well-established population-based colorectal cancer screening program in Malaysia.<sup>5</sup> The low prevalence of colorectal cancer might explain this detection early among Malaysians.<sup>6</sup> Furthermore, the low proportion of colorectal cancer presented at an early stage could be attributed to patient factors such as low socio-economic status and lack of colorectal cancer knowledge, and the health system factor such as poor accessibility to cancer awareness and screening, and lack of skilled healthcare workers, and well-established referral systems.<sup>6,7</sup> Most Malaysians have low participation with negative perception towards colorectal cancer screening.<sup>7-10</sup> Low participation in colorectal

### Corresponding Author:

Rahman MM, Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak, Malaysia.  
Email: [rmmizanur@unimas.my](mailto:rmmizanur@unimas.my)

ISSN: 2231-2196 (Print) ISSN: 0975-5241 (Online)

Received: 26.09.2020

Revised: 28.10.2020

Accepted: 30.11.2020

Published: 23.02.2021